

August 2018 Drought Update

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In response to persistent and prolonged drought conditions throughout the southern half of the state and along the western border, the Governor activated the Colorado Drought Mitigation and Response Plan for the agricultural sector on May 2, 2018, additional information can be found <u>HERE</u>.

With only six weeks left in the 2018 water year, October through July of this year has been the second warmest and the fifth driest October through July period in the 123 year record. However, statewide values poorly convey the stark contrast across the state. July and August to-date have been as much as 5 degrees above average in parts of western Colorado, while the northeastern plains have been near normal with some isolated record low temperatures. Monsoon rains have brought beneficial moisture to some regions including the San Luis Valley and Arkansas Basin, however the Northwest has seen limited precipitation resulting in worsening drought conditions. This week brought nearly an inch of rain to parts of Mesa County, yet the 2018 water year remains the driest year on record for the Grand Mesa; indicating long term deficits continue to dominate.

- SNOTEL water year to-date precipitation statewide is 67 percent of average, but ranges from 47 percent of average in the Southwest basins to 85 percent of average in the South Platte River Basin. The Rio Grande is at 53 percent of average; while the Gunnison is at 56 percent and would need 512 percent of average precipitation between now and September 30th to reach normal levels. The Arkansas is faring slightly better at 62 percent, while the northern basins of the Colorado and Yampa- White are at 76 and 75 percent of average, respectively.
- High temperatures, and below average precipitation have led to increasing water demand across much of the state. Reservoir storage, statewide is at 86 percent of normal, with the Arkansas, Colorado, Yampa-White, South Platte and Rio Grande all near normal levels, despite recent declines. However, the Southwest basins of the San Miguel, Dolores, Animas & San Juan, and Gunnison have seen significant decreases in reservoir storage and are now at 52 and 64 percent of normal, respectively.
- Warm water temperatures, coupled with low flows continue to stress fish populations, with continued fish kills reported and state hatcheries are struggling to keep up supplies, many of these areas are also impacted by ash flows and post fire related water quality issues. Water users have been working collaboratively across the state to maintain flows, where possible, and voluntary fishing restrictions are the most widespread the state has seen.
- Agriculture has been heavily impacted this growing season by both high temperatures, drought, and hail. Irrigation canals are being shut off early due to lack of supply, and fail and prevent crop acreage is high. Hay production is down and range conditions poor, producers are concerned about finding enough feed for cattle resulting in continued sell off.
- Some small water systems are being impacted by both continued dry conditions resulting in limited supply, and some reports of water hauling to meet demands. Restrictions, both voluntary and mandatory have been enacted in some communities, with Front Range water providers better situated than small west slope communities with limited storage.
- Long term forecasts indicate an increased likelihood of above average temperatures for September through November. Southwestern Colorado is forecast to continue to benefit from additional monsoon moisture and has an increased likelihood of above average precipitation into Fall.
- An El Niño watch has been issued, meaning there is a greater than 70 percent chance of an El Niño developing, which could bring an increased chance of wet extremes for southern Colorado beginning this Fall, however the Northwest corner remain an area of big concern going into the fall, as El Niño can result in dry conditions to the north.

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Locations across the state continue to break record low water year-to-date precipitation records. With only six weeks remaining in the water year it is extremely unlikely that normal conditions will be reached.





As of August 21st, exceptional drought, D4, continues to affect southern Colorado covering nine percent of the state. Extreme drought, D3, has expanded to cover 37 percent of the state; severe drought 20 percent and nine percent is classified as moderate drought. An additional seven percent of the state is currently experiencing abnormally dry conditions.



Warm, sunny and windy conditions have resulted in high evaporative demand- how much moisture the atmosphere is evaporating. At the Olathe site, in western Colorado, 2018 is on track to be the thirstiest year on record. This, combined with below-normal precipitation, has led to the exceptional drought in southwest Colorado.